```
input    PI1,PI2,PI3,PI4;
output   PO2,PO1 ;
assign   sel1 = PI1&PI2;
assign   sel2= PI3|PI4;
assign   w1 = PI2^PI3;
assign   PO2= w2|PI1 ;
always @ (sel1,w1,w2)
begin
      case (sel1)
      0 : PO1=w1 ;
      1 : PO1=w2;
      default : PO1=w1 ;
      endcase
end
always @ (sel2,PI1,PI3,PI4)
begin
      if (sel2)
          w2=PI3;
      else
          w2=PI4|PI1 ;
end
```
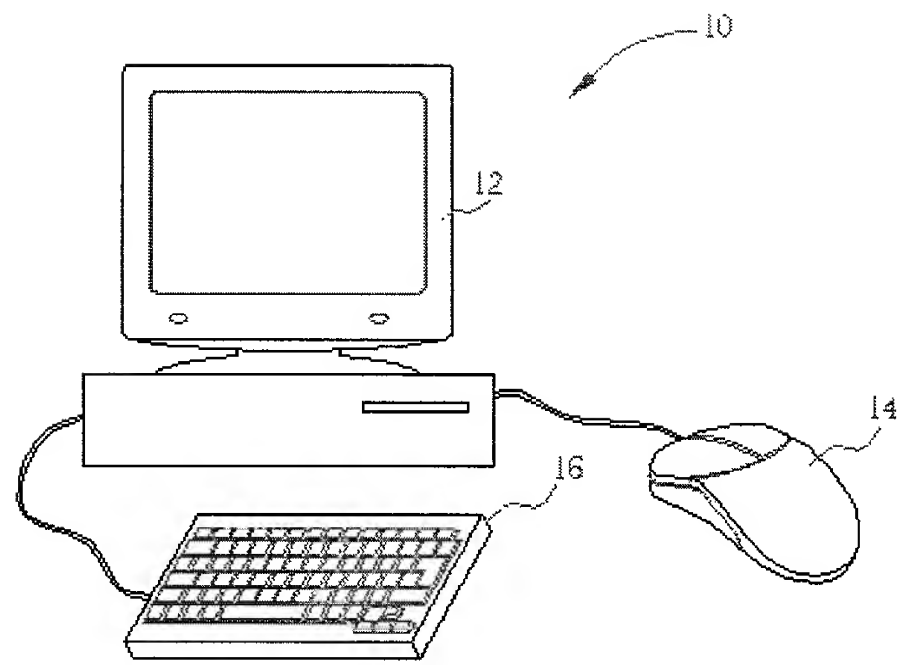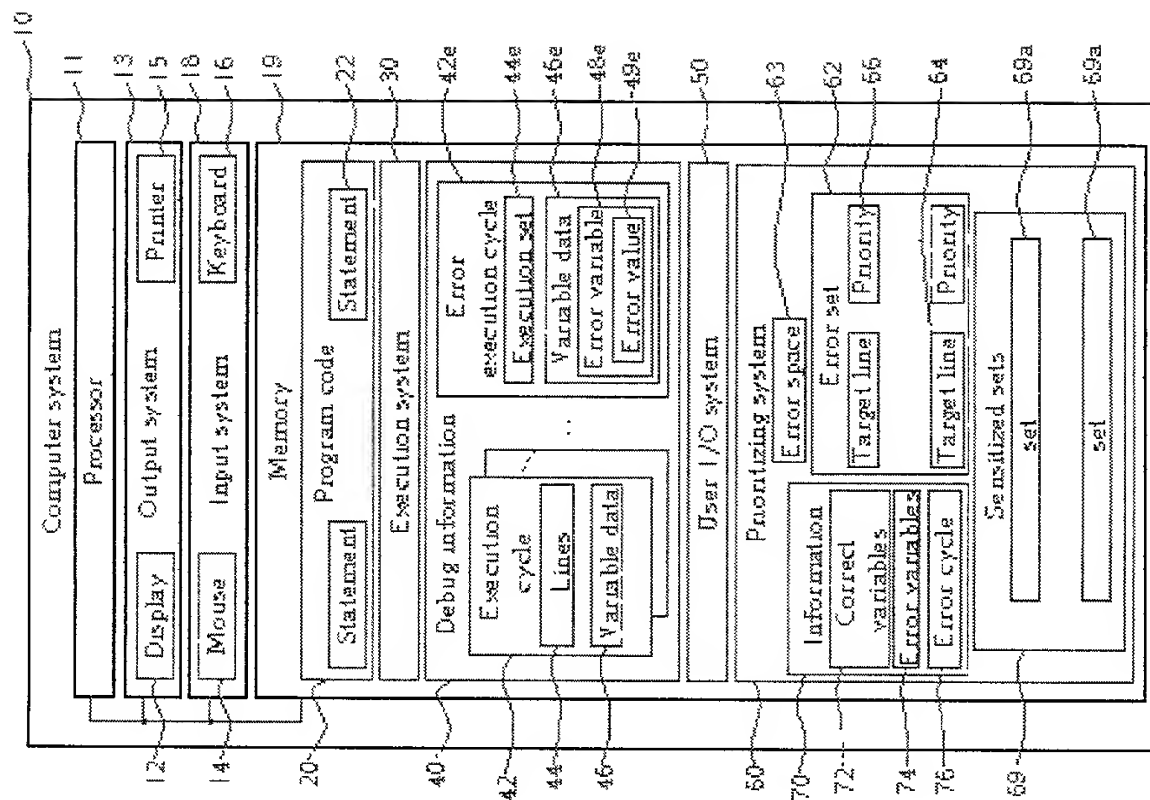
Fig. 1

```
input    PI1,PI2PI3PI4;
output   PO2,PO1;
assign   sel1 = PI1&PI2;        → 20
assign   sel2= PI3|PI4;         → 21
assign   w1 = PI2^PI3;          → 22
assign   PO2= w2|PI1;           → 23
always @ (sel1,w1,w2)           → 24
begin
         case (sel1)            → 25
         0 : PO1 =w1;           → 26
         1 : PO1 =w2;           → 27
         default : PO1 =w1;     → 28
         endcase
end
always@ (sel2PI1,PI3PI4)        → 29
begin
         if (sel2)              → 30
             w2=PI3;            → 31
         else
             w2=PI4;            → 3b
end
```

Fig. 2

Fig. 3

Fig. 4